SAMSUNG TECHWIN


**SALES NETWORK**

• **SAMSUNG TECHWIN CO., LTD.**
Samsungtechwin R&D Center, 701, Sampyeong-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea, 463-400
TEL : +82-70-7147-8740~60 FAX : +82-31-8018-3745

• **SAMSUNG TECHWIN AMERICA Inc.**
1480 Charles Willard St, Carson, CA 90746, UNITED STATES
Tol Free : +1-877-213-1222 FAX : +1-310-632-2195
www.samsungcctvusa.com

• **SAMSUNG TECHWIN EUROPE LTD.**
Samsung House, 1000 Hillswood Drive, Hillswood Business Park Chertsey, Surrey, UNITED KINGDOM KT16 0PS
TEL : +44-1932-45-5300 FAX : +44-1932-45-5325

www.samsungtechwin.com
www.samsungsecurity.com


P/No. : Z6806154901A

SAMSUNG TECHWIN

# High Resolution Compact Flat Dome Camera

User Manual

SCV-2010F

CE

SAMSUNG

**CAUTION**
RISK OF ELECTRIC SHOCK.DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSISTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.

THIS EXCLAMATION POINT SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

## WARNING

• TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
• TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

## WARNING

1. BE SURE TO USE ONLY THE STANDARD ADAPTER THAT IS SPECIFIED IN THE SPECIFICATION SHEET. USING ANY OTHER ADAPTER COULD CAUSE FIRE, ELECTRICAL SHOCK, OR DAMAGE TO THE PRODUCT.
2. INCORRECTLY CONNECTING THE POWER SUPPLY OR REPLACING BATTERY MAY CAUSE EXPLOSION, FIRE, ELECTRIC SHOCK, OR DAMAGE TO THE PRODUCT.
3. DO NOT CONNECT MULTIPLE CAMERAS TO A SINGLE ADAPTER. EXCEEDING THE CAPACITY MAY CAUSE ABNORMAL HEAT GENERATION OR FIRE.
4. SECURELY PLUG THE POWER CORD INTO THE POWER RECEPTACLE. INSECURE CONNECTION MAY CAUSE FIRE.
5. WHEN INSTALLING THE CAMERA, FASTEN IT SECURELY AND FIRMLY. THE FALL OF CAMERA MAY CAUSE PERSONAL INJURY.
6. DO NOT INSTALL THE UNIT IN HUMID, DUSTY, OR SOOTY LOCATIONS. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.
7. IF ANY UNUSUAL SMELLS OR SMOKE COME FROM THE UNIT, STOP USING THE PRODUCT. IN SUCH CASE, IMMEDIATELY DISCONNECT THE POWER SOURCE AND CONTACT THE SERVICE CENTER. CONTINUED USE IN SUCH A CONDITION MAY CAUSE FIRE OR ELECTRIC SHOCK.



8. IF THIS PRODUCT FAILS TO OPERATE NORMALLY, CONTACT THE NEAREST SERVICE CENTER. NEVER DISASSEMBLE OR MODIFY THIS PRODUCT IN ANY WAY. (SAMSUNG IS NOT LIABLE FOR PROBLEMS CAUSED BY UNAUTHORIZED MODIFICATIONS OR ATTEMPTED REPAIR.)
9. WHEN CLEANING, DO NOT SPRAY WATER DIRECTLY ONTO PARTS OF THE PRODUCT. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.

## CAUTION

1. DO NOT DROP OBJECTS ON THE PRODUCT OR APPLY STRONG BLOWS TO IT. KEEP AWAY FROM A LOCATION SUBJECT TO EXCESSIVE VIBRATION OR MAGNETIC INTERFERENCE.
2. DO NOT INSTALL IN A LOCATION SUBJECT TO HIGH TEMPERATURE (OVER 50°), LOW TEMPERATURE (BELOW -10°), OR HIGH HUMIDITY. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.
3. IF YOU WANT TO RELOCATE THE ALREADY INSTALLED PRODUCT, BE SURE TO TURN OFF THE POWER AND THEN MOVE OR REINSTALL IT.
4. REMOVE THE POWER PLUG FROM THE OUTLET WHEN THERE IS A LIGHTING STORM. NEGLECTING TO DO SO MAY CAUSE FIRE OR DAMAGE TO THE PRODUCT.
5. KEEP OUT OF DIRECT SUNLIGHT AND HEAT RADIATION SOURCES. IT MAY CAUSE FIRE.
6. INSTALL IT IN A PLACE WITH GOOD VENTILATION.
7. AVOID AIMING THE CAMERA DIRECTLY TOWARDS EXTREMELY BRIGHT OBJECTS SUCH AS SUN, AS THIS MAY DAMAGE THE CCD IMAGE SENSOR.
8. APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
9. THE MAINS PLUG IS USED AS A DISCONNECT DEVICE AND SHALL STAY READILY OPERABLE AT ANY TIME.
10. DO NOT EXPOSE THE CAMERA TO RADIOACTIVITY. RADIOACTIVITY EXPOSURE MAY DAMAGE THE CCD.

## FCC STATEMENT

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS :

1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.



## Caution

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT.
THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

IC COMPLIANCE NOTICE
THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE.-CAUSING EQUIPMENT REGULATIONS OF ICES-003.

### Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)
This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract.
This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

### Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)
This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.
To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.



## Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Features

### High Resolution

By adopting a diagonal 6mm(1/3") 410,000(NTSC) pixel, 470,000(PAL) pixel SONY CCD, the camera produces clear picture quality with a horizontal resolution of 600 TV lines for color.

### Excellent Sensitivity

The built-in high sensitivity COLOR CCD produces a clear image even in 0.04 Lux or lower illumination.



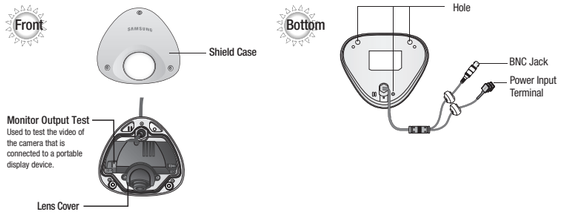
### SSNR3 Function (Samsung Super Noise Reduction)

The high-performance W-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.

### Pan and Tilt

Pan and tilt are available after installing camera.

## Component Names and Functions

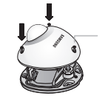



### Accessories

## Installation

### Disassembling

Using the L-wrench provided, loosen 3 screws by turning them counterclockwise and separate the dome cover.

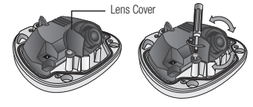


### Installing Camera

1. Use the screws to secure the camera to the ceiling.

2. Loosen the screws slightly on both sides of the lens cover to adjust the lens in a desired angle. Then, tighten up the screws.

3. Close the dome cover and turn it clockwise using the L-wrench.
   - If the cover is not fixed tightly, you may encounter a problem with waterproofing. (IP66)

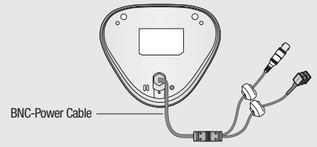



**Notes**

· The recommended screws are 4mm Tapping screws.
· The screws should not be larger than 4mm.
· When fastening the two screws, be careful not to damage the dome components.
· Arrange the cables properly lest that they be stuck between or peeled off. Otherwise, it may cause damage to the camera or a fire.

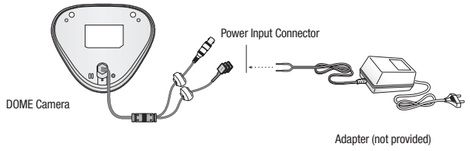
**Notes**

- To facilitate the installation work, arrange the BNC-POWER cable through the wiring hole.




## Connecting to Power

- Connect the adapter to the power input connector as shown in the figure below.
  Use a DC 12V. (The Adapter is not provided with the Dome Camera.)






## For DC Power Type

Resistance of copper wire [at 20℃(68℉)]

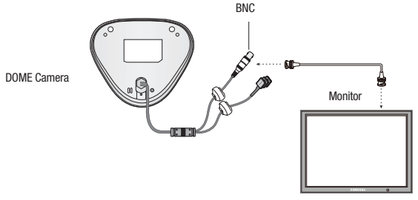
| Copper wire size (AWG) | #24(0.22mm²) | #22(0.33mm²) | #20(0.52mm²) | #18(0.83mm²) |
|---|---|---|---|---|
| Resistance ( Ω / m) | 0.078 | 0.050 | 0.030 | 0.018 |
| Voltage Drop (V/m) | 0.028 | 0.018 | 0.011 | 0.006 |

- As the voltage drop according to the length of the cable in the above table, a camera may malfunction if there is an excessively long cable run.
  * Voltage for camera operation: DC 12V±10%
  * Voltage drops in the above table are variable according to types of cable manufacturer.

## Connection to Monitor

**Connect the VIDEO-OUT jack to the VIDEO-IN jack of monitor.**

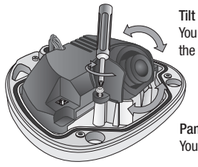
- As a connecting method varies according to instruments, refer to the manual supplied with the instrument.
- Connect the cable after power is turned off.






## Panning & Tilting Control

You can adjust the Panning and Tilting angle freely. (Panning angle: ±10º, Tilting angle: 0º~90º)



**Tilt Base**
You can adjust up and down the camera (0º~90º).

**Pan Base**
You can rotate the lens from ±10º

1) Adjustment Panning angle: After attaching the dome camera to a ceiling, adjust the panning angle for better monitoring area by rotating the Pan Base. The panning angle can be adjusted ±10º freely.
2) Adjustment Tilting angle: After attaching the dome camera to a ceiling, adjust the tilting angle for better monitoring area by rotating the Tilt Base. The tilting angle can be adjusted to 0º from 90º freely. (based the ceiling surface)

**Notes**

- If you want to adjust the lens angle, loosen the screws slightly on both sides of the lens cover to prevent possible damage to the camera before the adjustment.
- This dome camera is to be installed on the ceiling by factory default.
- If the camera is tilted more than 90°, captured screen may be obscured.



## Camera Operation

Built-in functions of the SCV-2010F Camera include the following

| Auto Functions | Setting | Descriptions |
|---|---|---|
| Electronic Shutter Speed | ESC | The shutter is controlled according to the brightness of screen by automatically. |
| WHITE BALANCE | ATW | It can be used within the color temperature range 1,700K ~ 11,000K. |
| BACKLIGHT | OFF | It helps view a desired area of picture at the backlight condition. |
| GAIN CONTROL | HIGH | The gain increases or decreases within the range of 6dB~34dB. |
| SSNR3 (Noise Reduction) | ON | There is sufficient reduction in noise levels without causing much ghost imaging. |
| SENS-UP | AUTO | It helps maintain a bright, clear screen image by automatically detecting changes in the level in low light levels without causing much ghost imaging. |
| SHARPNESS | ON | The outline of the video image becomes cleaner and more distinctive. |
| LENS SHADE | ON | It helps correct shading of Lens. |

✻ If you need to control OSD menu, It needs coaxial controller.



## Troubleshooting

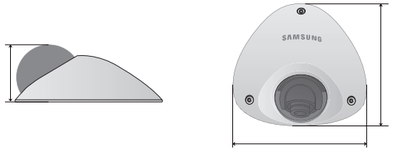
If you have trouble operating your camera, refer to the following.
If the guidelines do not enable you to solve the problem, contact an authorized technician.

■ **The image on the screen is dim.**
- Check if the lens are stained. If dirty, clean the lens with soft, clean cloth.
- The image is dimmer at night than daytime. If the focus is not right, adjust it at daytime.

■ **The contrast on the screen is too weak.**
- Adjust the contrast feature of the monitor.
- If the camera is exposed under too strong light, change the camera position.
- Adjust the lens BACK FOCUS again.

■ **The camera is not work properly, and the surface of the camera case is hot.**
- Check that you have connected the camera to a proper power (DC 12V±10%).

## Dimension






## Specification

| | SCV-2010FN | SCV-2010FP |
|---|---|---|
| **VIDEO** | | |
| Imaging Device | 1/3" Super HAD CCD | |
| Total Pixels | 811(H) x 508(V) | 795(H) x 596(V) |
| Effective Pixels | 768(H) x 494(V) | 752(H) x 582(V) |
| Scanning System | 2:1 Interlace | |
| Synchronization | Internal | |
| Frequency | H : 15.734KHz / V : 59.94Hz | H: 15.625KHz / V : 50.00Hz |
| Horizontal Resolution | Color : 600 TV lines | |
| Min. Illumination | Color : 0.04Lux (Sens-up, 2x) | |
| S / N (Y signal) | 52dB (AGC off, Weight on) | |
| Video Output | CVBS : 1.0 Vp-p / 75Ω composite | |
| **LENS** | | |
| Focal Length (Zoom Ratio) | 3.0mm | |
| Max. Aperture Ratio | F2.0 | |
| Angular Field of View | H : 89.5° / V : 67.2° | |
| **Pan / Tilt** | | |
| Pan Range | ±10° | |
| Tilt Range | 0° ~ 90° | |
| **OPERATIONAL** | | |
| On Screen Display | Multi-language Support by Coaxial Cable English, Japanese, Spanish, French, Portuguese, Korean | Multi-language Support by Coaxial Cable English, French, German, Spanish, Italian, Chinese, Russian, Polish, Czech, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese |
| Camera Title | Off / On (Displayed 15 characters) | |
| Day & Night | Auto (Electrical) / Color / B/W | |
| Backlight Compensation | BLC / HLC / OFF | |



## Specification

| | SCV-2010FN | SCV-2010FP |
|---|---|---|
| Dynamic Range | SSDR ( Off /On ) | |
| Digital Noise Reduction | SSNR III (Off / On) | |
| Digital Image Stabilization | Off / On | |
| Motion Detection | Off / On (8 programmable zones) | |
| Privacy Masking | Off / On (12 programmable zones) | |
| Sens-up (Frame Integration) | 2x ~ 512x | |
| Gain Control | low/high/off | |
| White Balance | ATW / Outdoor / Indoor / Manual / AWC (1,700K° ~ 11,000K°) | |
| Electronic Shutter Speed | 1/60 ~ 1/120,000 sec | 1/50 ~ 1/120,000 sec |
| Digital Zoom | Off / On (1x ~ 16x) | |
| Flip / Mirror ( Reverse ) | H-Rev ( Off/On ), V-Rev ( Off/On ) | |
| Communication | Coaxial Control (SPC-300 compatible) | |
| Protocol | Pelco-C (Coaxitron) | |
| **ENVIRONMENTAL** | | |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) / Less than 90% RH | |
| **ELECTRICAL** | | |
| Input Voltage | DC 12V±10% | |
| Power Consumption | 1.8W | |
| **MECHANICAL** | | |
| Color/Material | Body : Ivory / Aluminum | |
| Dimension (W X H X D) | W125.2 x H52 x D115.2mm | |
| Weight | 410g | |
| Water Resistance | IP 66 | |

※ The specification for this product may change without prior notice for product improvement.



MEMO